DR. RAJA RAMANNA : Let me continue the answer. We want to get an aircraft as advanced and as capable of further advancement in the forefront of aeronautic design. It is not just off like that. It is going to take several years to do this. As I told you, starting from 1983 up to 1995 is the time of development, and after this, production we will have to start. So, that gives you a rough idea that it is not all of a sudden.

I have not come prepared to answer questions on the HAL. I believe India is capable of being in the forefront of modern design when special effort is made, I would like to riterate with my experience. (*Interruptions*)

SHRI SURESH KALMADI : My specific question was on engine. I want your protection. I specifically asked what the state of the indigenous production of the engine is. What will happen if the F-404 engines are not given by the United States in case the engine is not developed in time. I want an answer to that.

SHRI SUKOMAL SEN : Do you want pro luction (*Interruptions*)

DR. RAJA RAMANNA : Answering the supplementaries, the first thing I referred to was the engine problem. The engin is a very difficult thing to develop. The GTX was started a long time ago to get necessary experience of how to develop an engine. That is why we are trying to get some know how from the United States, and from our experience of servicing the MiG engines I believe it is quite possible for this country to get to the modern engine technology. I am quite certain about it.

PROF. C. LAKSHMANNA : Mr. Chairman, Sir, the project has been in the offing for the last eight years almost, and also a sum of Rs. 273 crores has been spent. I think suddenly they have woken up, and they are saying that there is delay etc. That is beside the point. But the question is, it is good that there is no negotiation, no major negotiation with any French firm and that it is only for sub-systems. My question is : In case there is a difficulty for the sub-sytems, have we also been developing through R&D for meeting such contingency if there is any failure ? If that is the case, how long further it will take for us to realise a very important project like the LCA ? Will it be by 1995 or even later even if there has been some failure with regard to the negotiations which we are having for the sub-systems and components with France or any other country ? Therefore, I would like to know from the Minister what alternate R&D developments have been taking place, and whether, if that is to happen, we are in a position to cope with the situation and then have an LCA project which is a very desirable thing so that we can strengthen our force.

DR. RAJA RAMANNA : Sir, I would like to answer this. The whole project is being done and if we fail in some aspects, something else holds it up, that is why we are having a series of consultancy programmes and also the ADA, Aeronautics Development Agency has been created only to examine this problem together with the various aeronautic establishments in the country.

Review of the Narora Atomic Power Project

*205. SHRI RAM NARESH YADAV: Will the PRIME MINISTER be pleased to state :

(a) whether it is a fact that the Narora Atomic Power Project is likely to be reviewed from the security point of view;

(b) whether it is also a fact that the approval for commissioning the plant was issued in 1989 only for five years; and

(c) if so, what are the details in this regard ?

THE MINISTER OF STATE IN THE MINISTRY OF SCIENCE AND TECHNOLOGY WITH ADDITIONAL CHARGE OF THE MINISTER OF STATE IN THE DEPARTMENT OF EDUCATION IN THE MINISTRY OF

HUMAN RESOURCE DEVELOPMENT (PROF. M. G. K. MENON) : (a) All Atomic Power Plants including Narora Atomic Power Plant Unit—1 & 2 are subjected to a continues process of review by Atomic Energy Regulatory Board (AERB) with respect to safety.

(b) and (c). The regulatory clearance by AERB at present is for operating the first Unit of Narora Atomic Power Plant upto 50 per cent of the full reactor power and application has been made by the Nuclear Power Corporation to AERB for raising the power level in steps upto 75 per cent and subsequently to 100 per cent of full reactor power. This is under consideration by AERB. The Atomic Energy Regulatory Board has recently taken a decision to the effect that when an operational authorisation is given for any atomic power plant it shall be initially for a period of five years and shall be reviewed thereafter.

श्री राम नरेश यादव : माननीय सभापति जी, माननीय मंत्री जी ने कहा कि केवल 50 प्रतिशत तक के लिये ही रियेक्टर को क्षमता के आधार पर बिजली बनाने की अनुमति दी गई है । इस परियोजना का लक्ष्य था कि प्रदेश में और देश में जो बिजली की कमी है उसकी आवश्यकता की पूर्ति को देखते हुए उसे आरंभ किया गया था । किन्तु 50 प्रतिशत तक की क्षमता को ध्यान में रखते हुए उसको अनुमति दी गई । लेकिन उसको देने के बाद भी एक प्रश्न अभी विचाराधीन है कि उसकी क्षमता को 50 से बढ़ाकर 75 प्रतिशत या 100 प्रतिशत कर दिया जाए । माननीय मंत्री जी से मैं जानना चाहता हूं कि यह कब से विचाराधीन है और कब यह निर्णय लिया जाएगा कि 50 से 75 प्रतिशत कर दिया जाए क्योंकि उसका जो आब्जेक्ट है वह पूरा नहीं हुआ है । उस आब्जेक्ट को पूरा करने के लिए कब तक सरकार निर्णय ले लेगी ?

PROF. M. G. K. MENON : Commercial power operation from this plant would commence from the early part of the financial year 1990-91. The reason why one has been proceeding in steps is essentially because this is the first standardised reactor of it, kind in India and there have been certain major design changes with regard to the fact that the moderater is not dumped, but the neutron absorbing set off rods are dropped inside. Therefore, there was a need for time from the point of validation of physics codes and checking reactivity. This takes time. Therefore, the reactor has been moved up in steps of power generation. Once the clearance from AERB is received in the early part of the financial year it will be in commercial operation.

श्री राम नरेश यादव : श्रीमन्, मेरा दूसरा प्रश्न यह है कि इतना बड़ा प्रोजेक्ट है और जैसा कि अभी आपने कहा कि इंडिया का बहुत बड़ा प्रोजेक्ट है और यह बात भी सही है कि बहुत कुछ उसमें पूंजी लगी हुई है । अब सुरक्षा की दृष्टि से यह प्रश्न खड़ा होता है कि समय समय पर उसकी समीक्षा की जाए । मैं जानना चाहता हूं कि उसकी समीक्षा पिछली बार कब हुई और समीक्षा के आधार पर सुरक्षात्मक दृष्टि से क्या क्या कदम उठाए गए ताकि भविष्य में उसके ऊपर कोई आघात न पहुंचने पाए ।

PROF. M. G. K. MENON : There are two different parts. First relates to reactor safety in its own right from the viewpoint of foundations, design, containment and various aspects which reactor engineers deal with. The second part deals with the question of sitting of nuclear power reactors.

The question raised was about possible attacks which may then produce an impact. All I can answer with regard to this question is that any installation certainly can be attacked. What one has to do from the viewpoint of basic design is that if anything did happen, we can contain the radioactivity so that it does not spread and will not constitute a major hazard of any description.

श्री राम नरेश यादव : श्रीमन्, मैंने पूछा था कि पिछले किसी आखिरी बार कब उसकी जांच हुई और समीक्षा होने के बाद कोई कमी पाई गई और उसे

पाई गई तो उसके लिए क्या कदम उठाए, गए ?

MR. CHAIRMAN : He wants to know when you examined the whole thing.

PROF. M. G K. MENON : The process of looking at the safety aspects is a continuing activity of AERB. That is why one is awaiting their clearance which they will now give for a period of five years from the time of putting into commercial operations. It is connected with the grid now.

चौधरी हरमोहन : माननीय, सभापति जी, मैं माननीय मंत्री जी से जानना चाहता हूं कि क्या नरौरा एटामिक पावर प्लांट ने इस तरह का कोई सर्वे किया है कि उससे निकलने वाली भाप, धुंए और बेकार के पानी से उसके आसपास के गांवों और फसलों पर बुरा असर पड़ रहा है और अगर पड़ रहा है तो सरकार उसको रोकने के लिए क्या उपाय कर रही है ?

MR. CHAIRMAN: Is it affecting the crops and other things?

PROF. M. G. K. MENON: There is a continuing environmental check around all atomic power plants from the viewpoint of radioactivity, if any, in the air, as also that deposited on the ground, in water bodies or on plants and so on. This is done in the case of Narora also. At the moment, there is no reasons for considering that Narora power plant produces any radiation, damage or hazard to the people around the plant.

MR. CHAIRMAN: Question Hour is over.

Starting of manufacturing operations abroad by India Computer Companies

*201. SHRI BIR BHADRA PRATAP SINGH: Will the PRIME MINISTER be pleased to state:

(a) whether it is a fact that some Indian Computer Companies have started recently manufacturing operations abroad; if so, what are their names and the details of their activities; and

(b) whether it is also a fact that the Indian developed Computer, Magnum, is selling very well in the United States of America against competition from Companies like IBM; if so, the details thereof?

THE MINISTER OF STATE IN THE MINISTRY OF SCIENCE AND TECHNOLOGY WITH ADDITIONAL CHARGE OF THE MINISTER OF STATE IN THE DEPARTMENT OF EDUCATION IN THE MINISTRY OF HUMAN RESOURCE DEVELOPMENT (PROF. M. G. K. MENON): (a) The approvals given to the Indian Computer Companies for setting up joint venture companies or wholly owned subsidiaries are as under:—

Name of Indian Company	Country	Activities	Date of Approval	Date of commencement of operation
M/s. HCL Limited	Singapore	Computer Manufacturing	10-12-79	30-6-80
M/s. HCL Limited	USA	Advanced Computer Software	25-10-88	..
M/s. Infosys Consultants (P) Ltd.	USA	Marketing of Software	21-3-88	1-4-88
M/s. Softex (P) Ltd.	USA	Software Manufacturing	29-12-89	..

NOTE: The above mentioned companies are involved in system engineering or development of the software and marketing.